Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Pickrell Drilling Company Lease & Well No. Bliss #4

Elevation Cecil Burton XXXX 1480' K.B. Ticket Number 3233

Date 12-14-63 Sec. 3 Twp. 30S Range 7W County Kingman State Kansas

Test Approved by Cecil Burton Western Representative George Tew

Formation Test No. 1 O.K. X Misrun ____ Interval Tested From 4119' to 4131' Total Depth 4131'

Size Main Hole 7 7/8" Rat Hole None Conv. X B.T. ____ Damaged ____ Yes X No Conv. ____ B.T. X Damaged ____ Yes X No

Packer Depth 4119 Ft. Size 6 3/4" Packer Depth 4114 Ft. Size 6 3/4"

Straddle ____ Yes ____ No X Conv. ____ B.T. ____ Damaged ____ Yes ____ No

Packer Depth ____ Ft Size ____

Tool Size 5½" OD Tool Jt. Size 4½" FH Anchor Length 12 Ft. Size 5½" OD

RECORDERS Depth 4123 Ft Clock No. 6889 Depth 4126 Ft. Clock No. 59

Top Make Amerada Cap. 4200# No. 1559 Inside ~~Outside~~ Bottom Make Western Cap. 4000# No. 59 ~~Inside~~ Outside

Below Straddle: Depth ____ Clock No. ____ Inside Outside Depth ____ Ft. Clock No. ____ Inside Outside

Top Make ____ Cap. ____ No. ____ Inside Outside Bottom Make ____ Cap. ____ No. ____ Inside Outside

Time Set Packer 10:41 A M

Tool Open I.F.P. From 10:43A M to 10:48A M - Hr. 5 Min. From (B) 37 P.S.I. To (C) 37 P.S.I.

Tool Closed I.C.I.P. From 10:48A M. to 11:18A M. - Hr. 30 Min. (D) 741 P.S.I.

Tool Open F.F.P. From 11:18A M. to 12:48A M. 1 Hr. 30 Min. From (E) 56 P.S.I. To (F) 77 P.S.I.

Tool Closed F.C.I.P. From 12:48A M. to 1:18A M. - Hr. 30 Min. (G) 641 P.S.I.

Inital Hydrostatic Pressure (A) 2297 P.S.I. Final Hydrostatic Pressure (H) 2282 P.S.I.

SURFACE INFORMATION Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow

____ ____ ____ M. ____

____ ____ ____ M. ____

____ ____ ____ M. ____

BLOW Good throughout test Bottom Choke Size 3/4 in.

Did Well Flow ____ Yes X No Recovery Total Ft. 210' Fluid - 3500' G.I.P. - 210' S.O.C. Mud

Reversed Out ____ Yes X No Mud Type Starch Viscosity 45 Weight 10. Maximum Temp. 121 °F

EXTRA EQUIPMENT: Dual Packers Yes Safety Joint No Jars: Size No Make ____ Ser. No. ____

Type Circ. Sub. Plug Did Tool Plug? No Where? ____ Did Packer Hold? Yes

Length Drill Pipe 3294 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 890 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ____ ft.

I. D. Drill Collars ____ in. Length D. S. T. Tool 32 ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 12-14-63 Test Ticket No. 3233

Recorder No. 1559 Capacity 4200# Location 4123 Ft.

Clock No. 6859 Elevation 1480' K.B. Well Temperature 121 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2297	P.S.I.
B	First Initial Flow Pressure	37	P.S.I.
C	First Final Flow Pressure	37	P.S.I.
D	Initial Closed-in Pressure	741	P.S.I.
E	Second Initial Flow Pressure	56	P.S.I.
F	Second Final Flow Pressure	77	P.S.I.
G	Final Closed-in Pressure	641	P.S.I.
H	Final Hydrostatic Mud	2282	P.S.I.

	Time Given	Time Computed
Opened Tool	10:41 A M	10:41 AM
First Flow Pressure	5 Mins.	5 Mins.
Initial Closed-in Pressure	30 Mins.	30 Mins.
Second Flow Pressure	90 Mins.	90 Mins.
Final Closed-in Pressure	30 Mins.	33 Mins.

PRESSURE BREAKDOWN

First Flow Press.

Breakdown: 1 Inc.
of 5 mins. and a
final inc. of - Min.

Point Mins.	Press.
P 1 0	37
P 2 5	37
P 3	
P 4	
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In

Breakdown: 10 Inc.
of 3 mins. and a
final inc. of - Min.

Point Minutes	Press.
0	37
3	66
6	123
9	188
12	248
15	309
18	390
21	468
24	554
27	633
30	741

Second Flow Pressure

Breakdown: 18 Inc.
of 5 mins. and a
final inc. of - Min.

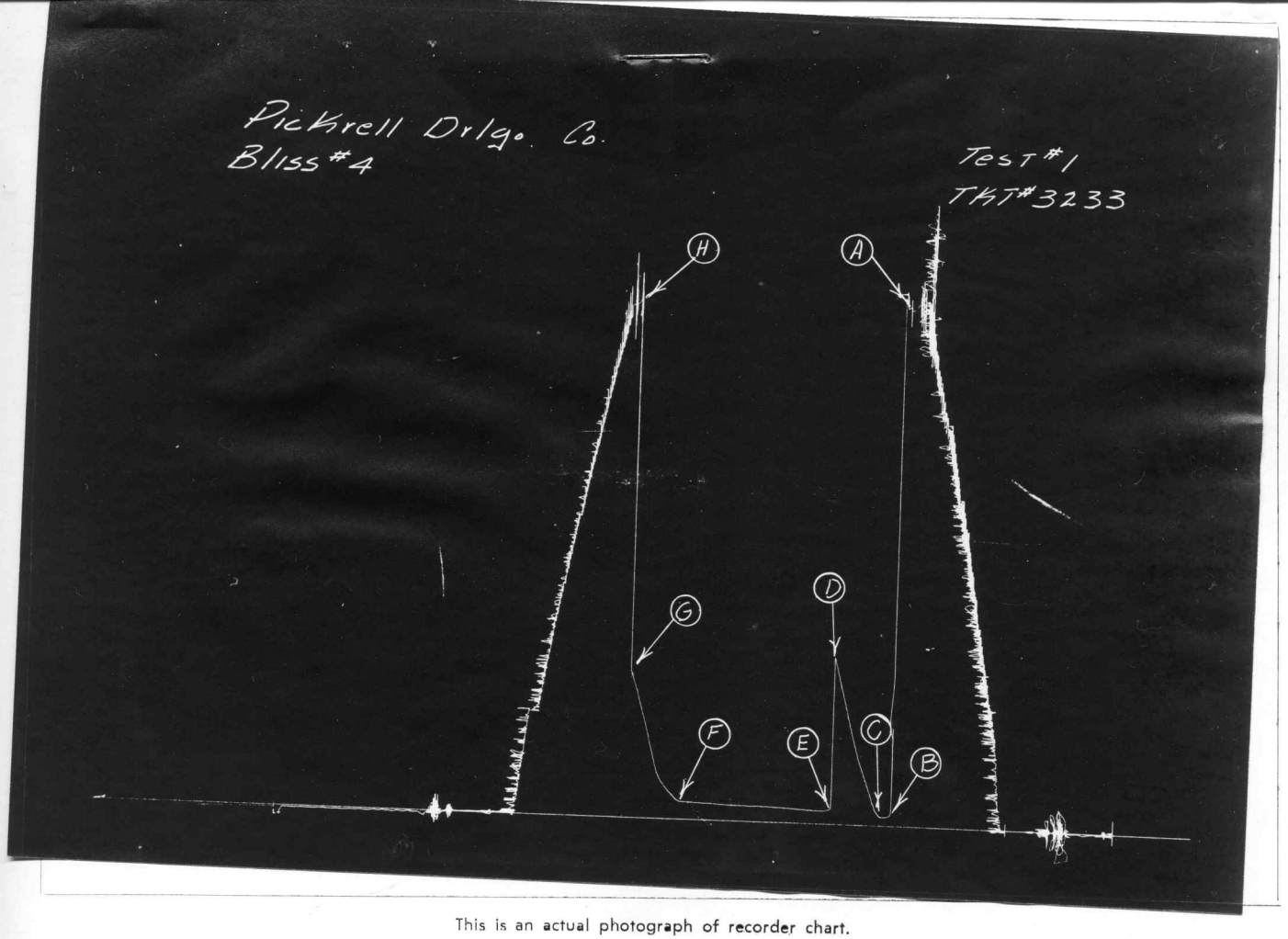
Point Minutes	Press.
0	56
5	58
10	60
15	61
20	63
25	66
30	68
35	69
40	70
45	70
50	70
55	70
60	70
65	71
70	72
75	73
80	74
85	75
90	77

Final Shut-In

Breakdown: 11 Inc.
of 3 mins. and a
final inc. of - Min.

Point Minutes	Press.
0	77
3	83
6	104
9	127
12	154
15	190
18	257
21	336
24	413
27	489
30	560
33	641

WHELAN PRINTERS



This is an actual photograph of recorder chart.

POINT		PRESSURE	
(A)	Initial Hydrostatic Mud	2297	PSI
(B)	First Initial Flow Pressure	37	PSI
(C)	First Final Flow Pressure	37	PSI
(D)	Initial Closed-in Pressure	741	PSI
(E)	Second Initial Flow Pressure	56	PSI
(F)	Second Final Flow Pressure	77	PSI
(G)	Final Closed-in Pressure	641	PSI
(H)	Final Hydrostatic Mud	2282	PSI

Company Pickrell Drlg. Co. Lease and Well No. Bliss #4 Sec. 3 Twp. 30S Rge. 7W Test No. 1 Date 12-14-63

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Pickrell Drilling Company Lease & Well No. Bliss #4

Elevation 1480' K.B. Ticket Number 3234

Date 12-15-63 Sec. 3 Twp. 30S Range 7W County Kingman State Kansas

Test Approved by Ralph W. Ruwwe Western Representative George Tew

Formation Test No. 2 O.K. X Misrun ____ Interval Tested From 4132' to 4151' Total Depth 4151'

Size Main Hole 7 7/8" Rat Hole None Conv. X B.T. ____ Damaged ____ Yes X No Conv. ____ B.T. X Damaged ____ Yes X No

Packer Depth 4132 Ft. Size 6 3/4" Packer Depth 4127 Ft. Size 6 3/4"

Straddle ____ Yes ____ No X Conv. ____ B.T. ____ Damaged ____ Yes ____ No

Packer Depth ____ Ft Size ____

Tool Size 5½" OD Tool Jt. Size 4½" FH Anchor Length 19 Ft. Size 5½" OD

RECORDERS Depth 4144 Ft Clock No. 5939 Depth 4147 Ft. Clock No. 59

Top Make Amerada Cap. 4200# No. 1559 Inside ~~Outside~~ Bottom Make Western Cap. 4000# No. 59 Inside Outside

Below Straddle: Depth ____ Clock No. ____ Inside Outside Depth ____ Ft. Clock No. ____ Inside Outside

Top Make ____ Cap. ____ No. ____ Inside Outside Bottom Make ____ Cap. ____ No. ____ Inside Outside

Time Set Packer 1:15A M

Tool Open I.F.P. From 1:17A M to 1:22A M - Hr. 5 Min. From (B) 60 P.S.I. To (C) 60 P.S.I.

Tool Closed I.C.I.P. From 1:22A M. to 1:52A M. - Hr. 30 Min. (D) 1054 P.S.I.

Tool Open F.F.P. From 1:52A M. to 3:22A M. 1 Hr. 30 Min. From (E) 83 P.S.I. To (F) 126 P.S.I.

Tool Closed F.C.I.P. From 3:22A M. to 3:52A M. - Hr. 30 Min. (G) 914 P.S.I.

Inital Hydrostatic Pressure (A) 2276 P.S.I. Final Hydrostatic Pressure (H) 2261 P.S.I.

SURFACE INFORMATION Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow

____ ____ ____M. ____

____ ____ ____M. ____

____ ____ ____M. ____

BLOW Good throughout test Bottom Choke Size 3/4 in.

Did Well Flow ____ Yes X No Recovery Total Ft. 280' Fluid - 3300' G.I.P. - 280' S.O.C.M.

Mud

Reversed Out ____ Yes X No Mud Type Starch Viscosity 45 Weight 19. Maximum Temp. 122 °F

EXTRA EQUIPMENT: Dual Packers Yes Safety Joint No Jars: Size No Make ____ Ser. No. ____

Type Circ. Sub. Plug Did Tool Plug? No Where? ____ Did Packer Hold? Yes

Length Drill Pipe 3272 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 840 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ____ ft.

I. D. Drill Collars ____ in. Length D. S. T. Tool 39 ft.

Remarks

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date 12-15-63 Test Ticket No. 3234

Recorder No. 1559 Capacity 4200# Location 4144 Ft.

Clock No. 6839 Elevation 1480' K.B. Well Temperature 122 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	2276 P.S.I.	Opened Tool	1:15 A M	1:15 AM
B	First Initial Flow Pressure	60 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C	First Final Flow Pressure	60 P.S.I.	Initial Closed-in Pressure	30 Mins.	32 Mins.
D	Initial Closed-in Pressure	1054 P.S.I.	Second Flow Pressure	90 Mins.	91 Mins.
E	Second Initial Flow Pressure	83 P.S.I.	Final Closed-in Pressure	30 Mins.	33 Mins.
F	Second Final Flow Pressure	126 P.S.I.			
G	Final Closed-in Pressure	914 P.S.I.			
H	Final Hydrostatic Mud	2261 P.S.I.			

PRESSURE BREAKDOWN

First Flow Press.
Breakdown: 1 Inc.
of 5 mins. and a
final inc. of - Min.

Point Mins.	Press.
P 1 0	60
P 2 5	60
P 3	
P 4	
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 2 Min.

Point Minutes	Press.
0	60
3	96
6	158
9	244
12	334
15	451
18	579
21	697
24	826
27	922
30	1004
32	1054

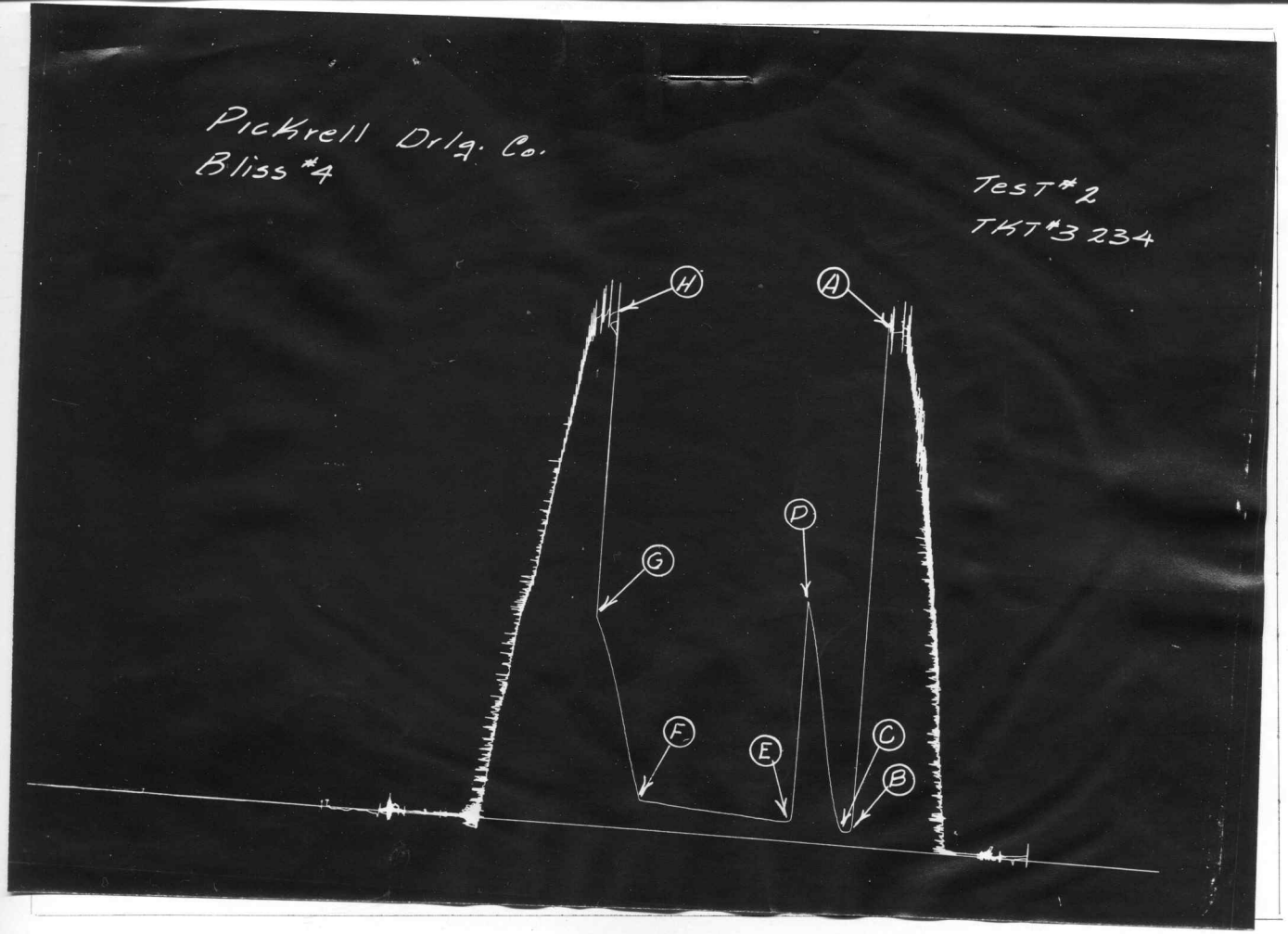
Second Flow Pressure
Breakdown: 18 Inc.
of 5 mins. and a
final inc. of 1 Min.

Point Minutes	Press.
0	83
5	84
10	86
15	89
20	94
25	96
30	98
35	100
40	101
45	102
50	104
55	106
60	108
65	110
70	114
75	118
80	121
85	123
90	125
91	126

Final Shut-In
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of - Min.

Point Minutes	Press.
0	126
3	192
6	259
9	336
12	413
15	500
18	579
21	651
24	724
27	782
30	841
33	914

WHELAN PRINTERS



This is an actual photograph of recorder chart.

POINT		PRESSURE	
(A)	Initial Hydrostatic Mud	2276	PSI
(B)	First Initial Flow Pressure	60	PSI
(C)	First Final Flow Pressure	60	PSI
(D)	Initial Closed-in Pressure	1054	PSI
(E)	Second Initial Flow Pressure	83	PSI
(F)	Second Final Flow Pressure	126	PSI
(G)	Final Closed-in Pressure	914	PSI
(H)	Final Hydrostatic Mud	2261	PSI

Company Pickrell Drilling Company Lease and Well No. Bliss #4 Sec. 3 Twp. 30S Rge. 7W Test No. 2 Date 12-15-63

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 GLadstone 3-7903

Company Pickrell Drilling Company Lease & Well No. Bliss #4

Elevation 1480' K.B. Ticket Number 3235

Date 12-15-63 Sec. 3 Twp. 30S Range 7W County Kingman State Kansas

Test Approved by Ralph W. Runwe Western Representative George Tew

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Formation Test No. 3 O.K. X Misrun ____ Interval Tested From 4151' to 4172' Total Depth 4172'

Size Main Hole 7 7/8" Rat Hole None Conv. X B.T. ____ Damaged ____ Yes X No Conv. ____ B.T. X Damaged X Yes ____ No

Packer Depth 4151 Ft. Size 6 3/4" Packer Depth 4147 Ft. Size 6 3/4"

Straddle ____ Yes ____ No X Conv. ____ B.T. ____ Damaged ____ Yes ____ No

Packer Depth ____ Ft Size ____

Tool Size 5½" OD Tool Jt. Size 4½" FH Anchor Length 21 Ft. Size 5½" OD

RECORDERS Depth 4164 Ft Clock No. 6839 Depth 4167 Ft. Clock No. 59

Top Make Amerada Cap. 4200# No. 1559 Inside Outside Bottom Make Western Cap. 4000# No. 59 Inside Outside

Below Straddle: Depth ____ Clock No ____ Inside Outside Depth ____ Ft. Clock No. ____ Inside Outside

Top Make ____ Cap. ____ No. ____ Inside Outside Bottom Make ____ Cap. ____ No. ____ Inside Outside

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Time Set Packer 3:53P M

Tool Open I.F.P. From 3:55P M to 4:00P M - Hr. 5 Min. From (B) 68 P.S.I. To (C) 68 P.S.I.

Tool Closed I.C.I.P. From 4:00P M. to 4:30P M. - Hr. 30 Min. (D) 1571 P.S.I.

Tool Open F.F.P. From 4:30P M. to 6:30P M. 2 Hr. - Min. From (E) 91 P.S.I. To (F) 282 P.S.I.

Tool Closed F.C.I.P. From 6:30P M. to 7:00P M. - Hr. 30 Min. (G) 1401 P.S.I.

Inital Hydrostatic Pressure (A) 2282 P.S.I. Final Hydrostatic Pressure (H) 2274 P.S.I.

SURFACE INFORMATION Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow

____ ____ ____ M. ____

____ ____ ____ M. ____

____ ____ ____ M. ____

BLOW Strong - Gas to surface in 10 mins. Bottom Choke Size 3/4 in.

Did Well Flow X Yes ____ No Recovery Total Ft. 870' 630' Clean Oil - 180' Muddy Oil - 60' Water

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Reversed Out ____ Yes X No Mud Type Starch Viscosity 39 Weight 10.1 Maximum Temp. 122 °F Mud

EXTRA EQUIPMENT: Dual Packers Yes Safety Joint No Jars: Size No Make ____ Ser. No. ____

Type Circ. Sub. Plug Did Tool Plug? No Where? ____ Did Packer Hold? Yes

Length Drill Pipe 3291 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 840 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ____ ft.

I. D. Drill Collars ____ in. Length D. S. T. Tool 41 ft.

Remarks

Gas too weak to gauge - Oil Gravity = 33°

Field reading on I.B.H.P. was corrected 49#. This unusually high correction is due to error in field reading.

WHELAN PRINTERS

WESTERN TESTING CO., INC.
Pressure Data

Date 12-15-63 Test Ticket No. 3235

Recorder No. 1559 Capacity 4200# Location 4164 Ft.

Clock No. 6839 Elevation 1480' K.B. Well Temperature 122 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2282	P.S.I.
B	First Initial Flow Pressure	68	P.S.I.
C	First Final Flow Pressure	68	P.S.I.
D	Initial Closed-in Pressure	1571	P.S.I.
E	Second Initial Flow Pressure	91	P.S.I.
F	Second Final Flow Pressure	282	P.S.I.
G	Final Closed-in Pressure	1401	P.S.I.
H	Final Hydrostatic Mud	2274	P.S.I.

	Time Given		Time Computed	
Opened Tool	3:53 P	M	3:53 PM	
First Flow Pressure	5	Mins.	5	Mins.
Initial Closed-in Pressure	30	Mins.	36	Mins.
Second Flow Pressure	120	Mins.	120	Mins.
Final Closed-in Pressure	30	Mins.	32	Mins.

PRESSURE BREAKDOWN

First Flow Press.

Breakdown: 1 Inc.

of 5 mins. and a

final inc. of - Min.

Point Mins.	Press.
P 1 0	68
P 2 5	68
P 3	
P 4	
P 5	
P 6	
P 7	
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In

Breakdown: 12 Inc.

of 3 mins. and a

final inc. of - Min.

Point Minutes	Press.
0	68
3	487
6	939
9	1294
12	1428
15	1491
18	1518
21	1537
24	1550
27	1556
30	1563
33	1567
36	1571

Second Flow Pressure

Breakdown: 24 Inc.

of 5 mins. and a

final inc. of - Min.

Point Minutes	Press.
0	91
5	92
10	98
15	108
20	119
25	131
30	142
35	152
40	165
45	175
50	186
55	200
60	209
65	215
70	223
75	229
80	236
85	244
90	252
95	257
100	256
105	259
110	267
115	275
120	282

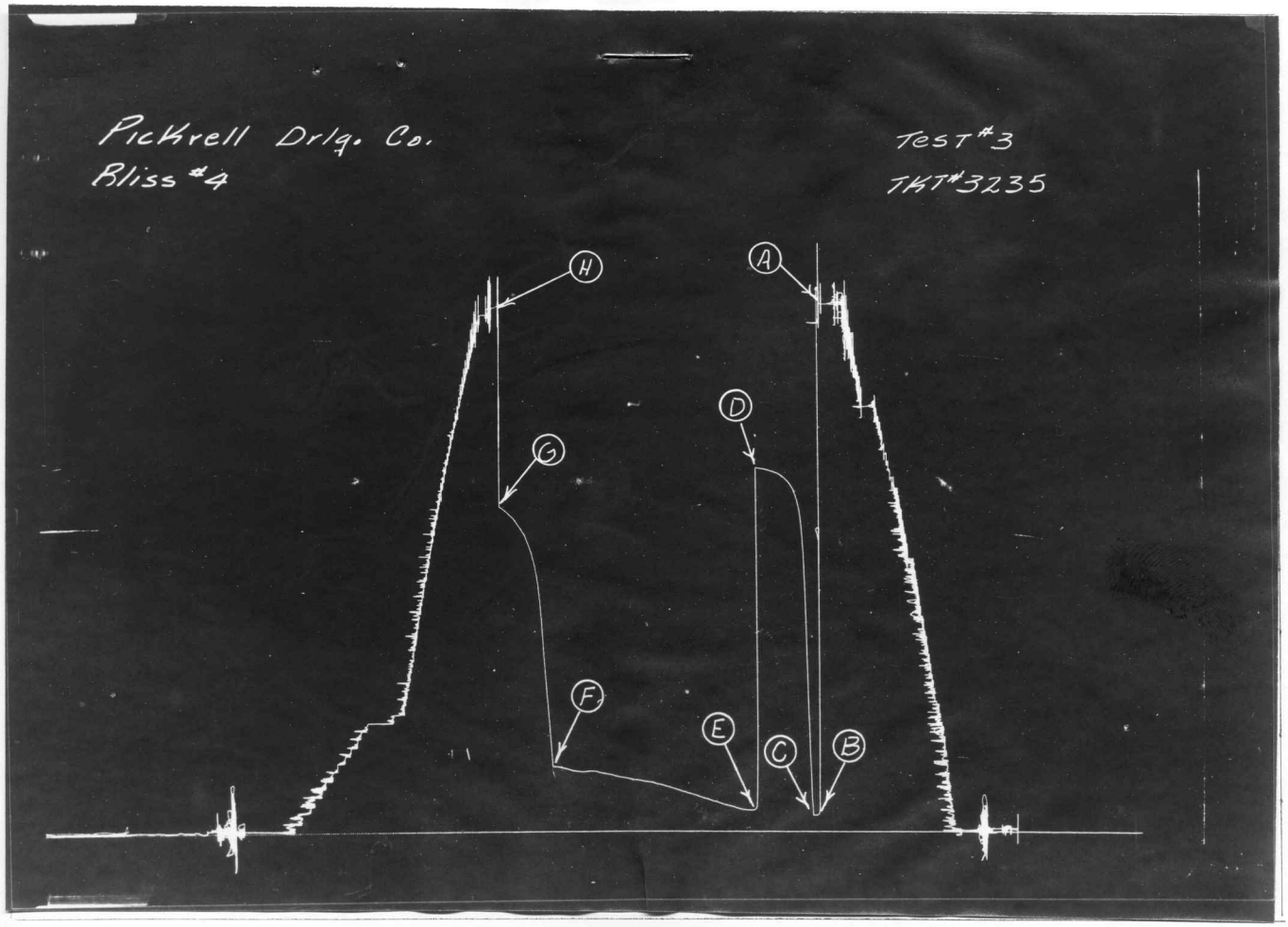
Final Shut-In

Breakdown: 10 Inc.

of 3 mins. and a

final inc. of 2 Min.

Point Minutes	Press.
0	282
3	612
6	870
9	1060
12	1167
15	1240
18	1288
21	1321
24	1353
27	1374
30	1392
32	1401



This is an actual photograph of recorder chart.

POINT		PRESSURE	
(A)	Initial Hydrostatic Mud	2282	PSI
(B)	First Initial Flow Pressure	68	PSI
(C)	First Final Flow Pressure	68	PSI
(D)	Initial Closed-in Pressure	1571	PSI
(E)	Second Initial Flow Pressure	91	PSI
(F)	Second Final Flow Pressure	282	PSI
(G)	Final Closed-in Pressure	1401	PSI
(H)	Final Hydrostatic Mud	2274	PSI

Company Pickrell Drlg. Co. Lease and Well No. Bliss #4 Sec. 3 Twp. 30S Rge. 7W Test No. 3 Date 12-15-63